Claims

1. A method for charging of data reaching a network element of a communication network during a data session,
the data session comprising a plurality of data flows, with each flow being distinguishable by a set of flow parameters,
the method comprising the steps of:
enforcing a charging policy at the network element to be applied to said data, wherein said charging policy defines charging rules per flow;
observing said data reaching said network element and detecting at least one flow of data; and
matching said detected flow of data to an enforced charging policy,
applying said matching charging policy to said flow, thereby generating charging information.

2. A method according to claim 1, further comprising a step of
forwarding said generated charging information to a charging system of the communication network.

3. A method according to claim 1, wherein
enforcing is performed upon start-up of the network element.

4. A method according to claim 1, wherein
enforcing is performed upon activation of the data session.

5. A method according to claim 4, wherein
enforcing is performed dynamically during the life-time of the data session.

6. A method according to claim 1, wherein
upon enforcing said charging policy, data volume counters and/or time counters are initialized.

7. A method according to claim 1, wherein
said data flows are Internet Protocol based packet data flows, and
said flow parameters comprise at least one of an IP header field, a transport header field, and an application level information.

8. A method according to claim 1, wherein
said charging policy comprises
at least one flow parameter, and
at least one of a charging/accounting type, an accounting event trigger, a charging metrics, and a tariffing indication.

9. A method for supplying a network element with a charging policy to be enforced at said network element for charging of data reaching said network element of a communication network during a data session,
the method comprising the step of:
- creating a plurality of charging policies,
each comprising
at least one flow parameter, and
at least one of a charging/accounting type, an accounting event trigger, a charging metrics, and a tariffing indication,
- selecting a charging policy based on offered services and subscriber information, and
- distributing said selected charging policy to at least one network element.

10. A method according to claim 9, wherein

a charging policy is selected for a type of a network element.

11. A device for charging of data reaching a network element of a communication network during a data session, the data session comprising a plurality of data flows, with each flow being distinguishable by a set of flow parameters,
the system comprising:
enforcing means adapted to enforce a charging policy at the network element to be applied to said data, wherein said charging policy defines charging rules per flow;
observation means adapted to observe said data reaching said network element and detecting at least one flow of data; and
matching means adapted to match said detected flow of data to an enforced charging policy,
application means adapted to apply said matching charging policy to said flow, and
generation means, responsive to said application means, adapted to generate charging information.

12. A device according to claim 11, further comprising
forwarding means adapted to forward said generated charging information to a charging system of the communication network.

13. A device according to claim 11, wherein
said enforcing means are responsive to a start-up of the network element to perform the enforcing.

14. A device according to claim 11, wherein
said enforcing means are responsive to activation of the data session to perform the enforcing.

15. A device according to claim 14, wherein

said enforcing means are dynamically performing the enforcing during the life-time of the data session.

16. A device according to claim 11, further comprising

initialization means adapted to initialize data volume counters and/or time counters responsive to enforcing said charging policy.

17. A device according to claim 11, wherein

said data flows are Internet Protocol based packet data flows, and

said flow parameters comprise at least one of an IP header field, a transport header field, and an application level information.

18. A device according to claim 11, wherein

said charging policy comprises

at least one flow parameter, and

at least one of a charging/accounting type, an accounting event trigger, a charging metrics, and a tariffing indication.

19. A device for supplying a network element with a charging policy to be enforced at said network element for charging of data reaching said network element of a communication network during a data session,

the device comprising:

- creation means adapted to create a plurality of charging policies,

each comprising

at least one flow parameter, and

at least one of a charging/accounting type, an accounting event trigger, a charging metrics, and a tariffing indication,

- selection means adapted to select a charging policy based on offered services and subscriber information, and

- distribution means adapted to distribute said selected charging policy to at least one network element.

20. A device according to claim 19, wherein

a charging policy is selected for a type of a network element.